

CHURCH BUILDING INTELLIGENCE.

Restoration of Redcliffe Church, Bristol.—A meeting of the subscribers to the fund for the restoration of this noble fabric was held on Thursday week, when the right worshipful the Mayor of Bristol presided. The report of the committee was read by Mr. Procter, churchwarden, from which it appeared that although in consequence of the general pressure of the times, and more particularly the prevalence of local distress, the committee did not think it prudent to make a very urgent appeal to the liberality of the public, yet the sum obtained almost voluntarily, was 4,700*l.* This is in short of the amount required, but the gentlemen present expressed themselves so anxious for the preservation of the church, that they resolved to recommend to the subscribers generally, to allow the money to be expended in putting the church into substantial repair, if sufficient should not be raised to carry out the magnificent plans contemplated last year. We understand that the project of erecting a spire on the present tower is abandoned. —*Both Herald.*

Alnwick.—It is contemplated to erect a new church at Alnwick, Northumberland. A memorial to his Grace the Duke of Northumberland, patron of the living, is in the course of signature, stating that the parish of Alnwick, with a population of nearly 7,000, contains only one church, which is insufficient for the wants of the parish, and requesting his grace's consideration and assistance with the view to the erection of a new church.

New Church, Lynn.—At a meeting of the committee, held at the Town-hall on Saturday last, it was resolved that the new church should be erected on a part of Allen's Close, being the ground offered for that purpose by the corporation.

Llandisilio.—The Marquis of Anglesey has granted two acres of land in a romantic and beautiful situation, as a site for a new church at Llandisilio, towards the funds for meeting which 360*l.* have been subscribed.

PATENTS RELATING TO ARCHITECTURE, ENGINEERING, &c.

Granted between 23rd December, 1843, and the 23rd of January, 1844.

[Six Months for Enrolment.]

Thomas Murray Gladstone, of the Swan Garden iron-works, Wolverhampton, ironmaster, for certain improvements in machines for cutting or shearing iron or other metals, which improvements are applicable to other like purposes. —*Sealed Dec. 29, 1843.*

George Benjamin Thornycroft, of Wolverhampton, ironmaster, for a machine for rolling, squaring, or compressing puddled balls of iron, and also for crushing or grinding other substances. —*Sealed Dec. 28, 1843.*

Edward Budd, of Huford Copper Works, Swansea, Glamorgan, copper-merchant, and William Jones, of the same place, refiner of copper, for improvements in treating or reducing copper ores, and in the construction of furnaces for treating such ores, part of which improvements are applicable to other ores. —*Sealed Dec. 28, 1843.*

William Longmaid, of the borough of Plymouth, accountant, for an improvement in the manufacture of copper, zinc, and peroxide of iron. —*Sealed Jan. 13, 1844.*

Robert Fosterlton, of the Jamaica Coffee-house, Carlisle, master mariner, for certain improved machinery for moving yachts and other floating apparatus. —*Sealed Jan. 13, 1844.*

Anthony Morillon de Glines, of Pantou-street, Whitechapel, gunsmith, for certain improvements in apparatus for propelling vessels on water, and in machinery, capable of communicating manual power to work the same, which machinery is also applicable to raising heavy bodies and exerting power for various other purposes. —*Sealed Jan. 13, 1844.*

Henry Bessemer, of Batley-house, St. Pauline, for a new pigment of paint, and a method of preparing the same; part of which method is also applicable to the preparing and coloring of oils, turpentine, varnishes, and gold-leaf, and employed to mix metallic powders, and metal lard, or as a means of protecting the same. —*Sealed Jan. 13, 1844.*

Charles Cammery, of Liverpool, chemist, for improvements in extinguishing fire in buildings. —*Sealed Jan. 16, 1844.*

THE BUILDER, OF BRISTOL, HAS AN ENGRAVER IN IVORY, FOR IMPROVEMENTS IN MA-

chinery for cutting wood and other materials. —*Sealed Jan. 16, 1844.*

William Edward Newton, of Chancery-lane, civil-engineer, for improvements in machinery or apparatus for facilitating the tracing and copying of designs, drawings, and etchings of all kinds, either of the original size or upon an enlarged or reduced scale. —*Sealed Jan. 16, 1844.*

William Basford, of Burnley, Staffordshire, brick and tile manufacturer, for certain improvements in the mode of manufacturing bricks, tiles, quarries, and certain other articles made or composed of brick-earth, and of burning and firing the same, and certain articles of pottery and earthenware. —*Sealed Jan. 20, 1844.*

Samuel Wright, of Shelton, Staffordshire, for a manufacture of ornamental tiles, bricks, and quarries for floors, pavements, and other purposes, being an extension of former letters patent for the term of seven years, from the 26th instant. —*Sealed Jan. 23, 1844.*

Henry Davies, of Norbury, Staffordshire, engineer, for certain improvements in the construction of vessels for conveying goods or passengers on water; also certain improved arrangements of machinery for communicating motion to such vessels. —*Sealed Jan. 25, 1844.*

SCOTCH PATENTS.

Granted between the 23rd November and the 12th of January, 1844.

Arthur Wall, of Bisterne-place, Poplar in the county of Middlesex, surgeon, for certain improvements in the manufacture of iron. —*Sealed Nov. 28, 1843.*

John George Bodmer, of Manchester, in the county of Lancaster, engineer, for certain improvements in grates, furnaces, and boilers, and also in the manufacturing of iron or other metals. —*Sealed Nov. 29, 1843.*

Thomas Dean, of Brighton, in the county of Sussex, gentleman, for improvements in coating glass with silver for looking-glasses, and other uses. —*Sealed Dec. 4, 1843.*

Frasia Higginson, of the city of Rochester, in the county of Kent, lieutenant in her Majesty's royal navy, for certain improvements in fastenings for ships and other vessels, which improvements are also applicable to other building purposes. —*Sealed Dec. 14, 1843.*

John Hick, of Bolton-le-Moors, in the county of Lancaster, engineer, for certain improvements in steam-engines, and in apparatus to be connected therewith for driving machinery, part of which improvements are applicable to forcing, lifting, and measuring water. —*Sealed Dec. 15, 1843.*

Henry Austin, of 87, Hatton-garden, in the county of Middlesex, civil-engineer, for a new method of gluing or cementing certain materials for building and other purposes. —*Sealed Dec. 26, 1843.*

Robertson James Wollaston, of Wellington, in the county of Kent, gentleman, for improvements in machinery for cutting marble and stone. —*Sealed Dec. 26, 1843. (Communication.)*

Margaret Henrietta Marshall, of Manchester, in the county of Lancaster, for a certain improved plastic composition, applicable to the fine arts and to useful and ornamental purposes. —*Sealed Jan. 3, 1844. (Communication.)*

Charles Townsend Christian, of St. Martin's-place, St. Martin's-lane, in the county of Middlesex, East-India army agent, for improvements in the construction of steam-engines. —*Sealed Jan. 12, 1844. (Communication.)*

IRISH PATENTS.

Granted between the 25th October and the 27th December, 1843.

John Wood, of Parkfield, Birkenhead, in the county of Chester, merchant, for certain improvements in machinery or apparatus for affording additional or artificial buoyancy to sea-going or other vessels; or for lessening their draught of water, and which improvements are also applicable to raising vessels, or other heavy bodies, and for securing and supporting the same. —*Sealed Oct. 23, 1843.*

Ernst Lenats, of Eastcheap, in the city of London, gentleman, for improvements in machinery for raising and forcing water and other fluids, which machinery, when worked by steam or water, may be employed for driving machinery. —*Sealed Oct. 23, 1843.*

Alfred Jeffery, of Lloyd-street, Pentonville, in the county of Middlesex, gentleman, for a new method of preparing masts, spars, and other wood, for ship-building and other purposes, and also a new method of defending the sheathing of ships, and protecting their sides and bottoms. —*Sealed Nov. 12, 1843.*

Charles James Wollaston, of Wellington, in the county of Kent, gentleman, for improvements in machinery for cutting marble and stone. —*Sealed Nov. 28, 1843.*

Nicolaus Troughton, of Swansea, in the county of Glamorgan, South Wales, gentleman, for improvements in drawing area requiring working. —*Sealed Nov. 29, 1843.*

William Wylam, of the borough and county of Newcastle-upon-Tyne, for an artificial composition, which, if variously modified, may be applied in preparing fuel from coal and other substances, or as a cement, or as a substitute for stone, or as a coating for metals and other substances. —*Sealed Dec. 27, 1843.*

Correspondence.

WESTMINSTER BRIDGE.

SIR,—The writer of the letter in your last Number, signed "A Civil Engineer of the Great Western Railway" (although he leaves us in ignorance of his status, whether engineer-in-chief, or a resident engineer's assistant's assistant), appears to me to have failed in his attempt to give support to the design that it is required the last of "A Practical Observer" in *THE BUILDER* of the previous week. The artificial effect of the design is a mere matter of taste, and may please some persons; but the point to which I would draw your attention, is the fallacy of the supposition, that a pier, incapable of supporting an arch of 100 feet span with its superincumbent weight equal to the support of one of 140 feet span as proposed.

In a case like the present, when the state of the work is such that Messrs. Walker and Burgess say, "To support the piers has been a constant expense, and is at this moment a source of considerable anxiety; and Mr. Barry—" It is now, in my opinion, no longer necessary to go to the propriety of rebuilding the superstructure alone, but the entire bridge," every other consideration must give way to the all-important one, the foundations. Let the bridge be reconstructed as it may, whether in the Tudor, Norman, or any other style, it must be supported by one of two methods: the first, by massive piers, each of sufficient strength to bear up and support half the weight of the thrust of the two adjoining arches. If this principle be adopted, which "A Civil Engineer of the Great Western Railway" (following in Messrs. Burgess and Walker's wake) recommends, then it is manifest that, instead of throwing two arches into one, and thus doubling the pressure upon piers acknowledged to be incompetent to support the weight of the correct system of procedure would be to increase their number, and reduce the span of arches, inconveniently narrow as they are.

The second method above referred to, is to construct the arches of such a form as to enable them to transmit their thrusts from one to another until they terminate in the abutments, which, if so made sufficiently massive, without any interference with the roadway. Thus, the piers being relieved, might be "few and far between," while, as relates to the lowering of the roadway, the height of headway for vessels, and the amount of clear waterway, the public convenience could be consulted to a far greater extent than by the former plan of construction.

The particular force of the arches I speak of, I must decline entering upon at present; but, Sir, one thing I trust, when Westminster-bridge becomes in such a state that all doubt of the advisability of removing it is cleared away, and that such are long will prove the case (especially if the proposed Thames embankment be carried into execution), notwithstanding the paragraph in the *Times* of the 23rd instant, I for one feel confident; then, Sir, I do trust, that the commissioners (acting upon the system pursued in the case of the House of Parliament) will at once call forth the energies of the engineering profession, by throwing the matter open to competition, within a reasonable time. Should this be done, I feel assured, no great has been the advance within a few years in the principles of bridge-architecture, that a design may be selected, to which, in point of beauty in outline, stability, united with economy of construction, and public convenience, even the Waterloo and new London bridges, fine structures as they are, must yield precedence.

I am, Sir, your obedient servant.

London, January 30, 1844. B.

SIR,—Two letters have been lately published in the *Times* journal, the one from Messrs. Walker and Burgess, and the other from Mr. Barry, on the subject of Westminster-bridge. The former gentlemen insist in their letter that "in a bridge constructed with semicircular arches, any one of the arches may fall without endangering the others, because a semicircular arch has no lateral thrust," and the latter gentleman declares that a pointed Gothic arch requires "a less weight on its crown to keep it hanging in its place than any other form of arch is able to."

Mr. Barry also states that the proposed new bridge, and the old one, are to be built so rapidly, but I think few were aware that the dispo-